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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
09/090,035	06/10/98	HAUPT	M	PHD97-074

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EXAMINER	
KUPSTAS,T	
ART UNIT	**PAPER NUMBER**
2153	14

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/090,035	Applicant(s) Haupt et al
	Examiner Tod Kupstas	Group Art Unit 2754

☒ Responsive to communication(s) filed on *Aug 24, 2000*.

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-18* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-18* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). *10*

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 9, and 11, are rejected under 35 U.S.C. 102(b) as being anticipated by Shindo (GB 2296811).

As set forth in claim 1, Shindo discloses a changer apparatus for information discs, comprising a stacking unit for stacking at least two information discs in respective stacking positions (elements 12), a read/write unit (17) for reading information stored on the information discs and/or writing information on the information discs in a play position, an eject position at which an information disc can be removed from the apparatus (access position 23) and, further comprising transport means for transport of the information discs from the eject position into a loading position of the stacking unit along a curve-shaped loading path (see fig. 1).

As set forth in claim 2, Shindo discloses a changer apparatus wherein the play position is between the eject position and the loading position (see fig. 1, a disk loaded directly for play would play the disk and could then store the disk within the tray apparatus, thereby effectively placing the play apparatus between the loading and ejecting positions).

As set forth in claim 3, Shindo discloses a changer apparatus wherein the play position is offset from the direct connecting line between the loading position and the eject position (see fig. 1).

As set forth in claim 4, Shindo discloses a changer apparatus characterized wherein the play position is disposed on the loading path (see fig. 1, the loading path can be construed to mean from the disk player to the loading position).

As set forth in claim 5, Shindo discloses a changer apparatus further comprising a first transport mechanism for transport of the information discs between the eject position, the play position and the loading position, and a second transport mechanism for transport of the information discs into the stacking positions of the stacking unit, the first transport mechanism being adapted to move the information discs in the loading plane and the second transport mechanism being adapted to move the information discs in a stacking direction oriented vertically with respect to the loading plane (pin 21 moves the stacking unit vertically).

As set forth in claim 6, a changer apparatus wherein the first transport mechanism comprises at least a first and a second guide for the disc edge of the information disc (tray mechanism), which guide is grooved and is movable in the loading plane, the second guide comprising at least one rotationally drivable transport wheel (disc tray driver 30).

As set forth in claim 9, Shindo discloses a changer apparatus wherein the read/write unit is movably supported on a chassis plate of the apparatus (disc play apparatus 17).

As set forth in claim 11, a changer apparatus characterized wherein the read/write unit is movable into the play position in the vertical direction (see fig. 4).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 7, 8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shindo (GB 2296811) in view of Umesaki (GB 0391424).

Shindo does not disclose the guide mechanism as claimed, however an analogous guide mechanism is employed, including a first passive guide and the third guide. In particular the usage of guide arms is not employed. As set forth in claims 7 and 12, it would have been obvious to have utilized arm guides for the transport of the disk. Umesaki discloses the usage of guide arms in the loading of the disk. It would have been obvious to one of ordinary skill in the art to have provided guide arms for the loading of disks, as taught by Umesaki, to the disk player as taught by Shindo. The rationale is as follows: It would have been desirable to have provided means for guiding the disk. As Umesaki teaches the desirability of using arms, one of ordinary skill would have been motivated by Umesaki's teaching to have provided arms to the disk player, as taught by

Shindo, thereby having provided art equivalent means for guiding the disk into the reproduction and loading positions.

As set forth in claim 8, Shindo discloses a changer apparatus wherein the first and third guide are mounted on a common pivot (see fig. 1, the pivot of the structure).

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shindo in view of Nakamichi et al (US 5,508,994).

As set forth in claim 10, Shindo discloses a changer apparatus characterized in that it has a read/write unit (17). Shindo does not explicitly disclose related clampers and dampers. As set forth in claim 10, Nakamichi et al disclose a changer apparatus characterized in that the read/write unit comprises a base plate and a laser mounting plate, the base plate and the laser mounting plate are coupled by means of dampers, the base plate is slidably mounted on the chassis plate, and the laser mounting plate carries a clamping device for clamping the information in the play position and an optical unit for reading information stored on the information disc; see col. 7, lines 28-54. It would have been obvious to a person of ordinary skill in the art at the time this invention was made to have provided the disk player, as taught by Shindo, with the clampers and dampers, as taught by Nakamichi et al. The rationale is as follows: It would have been desirable to have provided means for reproducing the discs clearly. As Nakamichi et al teach the desirability of utilizing disk clampers and dampers, one of ordinary skill would have been motivated by Nakamichi et al's teaching to have provided the disk player, as taught by Shindo, with dampers and clampers, thereby having provided secure means for reproducing the disks. comprises a base

plate and a laser mounting plate, the base plate and the laser mounting plate are coupled by means of dampers, the base plate is slidably mounted on the chassis plate, and the laser mounting plate carries a clamping device for clamping the information disc in the play position and an optical unit for reading information stored on the information disc.

6. Claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shindo in view of Clarion (Japanese document 6-13193).

As set forth in claims 13-17, Shindo does not disclose spindles. As set forth in claim 13, Clarion discloses screwthreads (element 4 and 5) wherein the holder compartments are movable into a vertical direction by rotation of the spindles, there have been provided an upper stacking zone and a lower stacking zone of the stacking unit for stacking the holder compartment the loading position has been provided in a central zone between the upper and the lower stacking zone, one of the holder compartments is each time movable into the loading position by rotation of the spindles, and the transport means are adapted to move the information disc from the holder compartment, which is in the loading position, into the play position and into the eject position. As set forth in claim 14, Clarion discloses a changer apparatus wherein the axial direction of the spindles the central zone has spacing zones at both sides of the loading position, which spacing zones define an axial spacing between the holder compartment in its loading position and the axially adjacent holder compartments in their stacking positions; see fig. 5. As set forth in claim 15, Clarion discloses a changer apparatus wherein the average screwthread pitch of the spindles in the loading position is smaller than the average screwthread pitch in the upper and lower stacking

zone; see fig. 5. As set forth in claim 16, Clarion discloses a changer apparatus wherein the screwthread pitch of the spindles in the loading position is essentially zero; see fig. 5. As set forth in claim 17, Clarion discloses a changer apparatus wherein the average screwthread pitch in the spacing zones is greater than the average screwthread pitch in the upper and the lower stacking zone; see fig. 5. It would have been obvious to a person of ordinary skill in the art at the time this invention was made to have provided the spindle mechanism for vertical movement, as taught by Clarion, with the disk player, as taught by Shindo. The rationale is as follows: it would have been desirable to have provided accurate and efficient means for rasing the disc storage position. As Clarion teaches the desirability of using the spindle mechanism, one of ordinary skill would have been motivated by Clarion's teaching to have provided the disc player, as taught by Shindo, with the spindle mechanism, thereby having provided an efficient art alternative method of raising and manipulating the disk storage area.

Official notice is taken regarding claim 18, with regards to having a lower and an upper guide pin for guiding the information discs into the holder compartments of the stacking unit, which guide pins are engageable into the center holes of the information discs from above and from below respectively. It would have been obvious to a person of ordinary skill in the art at the time this invention was made to have provided the disk player, as taught by Shindo, with guide pins. The rationale is as follows: It would have been desirable to have provided means for securing the disks in their respective holders. As the utilization of guide pins for securing disks is of old and notorious use in the art. One of ordinary skill in the art would have been motivated to

have provided the guide pins in the disk player as taught by Shindo, thereby providing secure means for containing the disks within their respective compartments.

Response to Arguments

7. Applicant's arguments filed 8/24/00 have been fully considered but they are not persuasive.

On page 7, applicant argues with respect to the Shindo reference that Shindo is concerned with a different problem than that which the applicant addresses. In particular applicant argues that the instant invention is to reduce the necessary depth of the changer (the examiner notes that this is commonly referred to in the art as the "height of the disk drive"). Page 8 of the arguments goes on to explain this aspect of the applicant's invention. The applicant mainly focuses on the intent within the specification, then points to the curved loading path in claim 1 as providing for this limitation in the claim. The examiner does not see how having the limitation of a curved loading path will then convey a limitation of the "depth" of the changer. One does not necessarily follow the other. As Shindo provides for a curved shaped loading path (indeed such a feature in the art is old and notorious to one of ordinary skill), Shindo meets the necessary limitations of claim 1. Discussion of the "depth" aspects in the specification have no bearing on claim 1, since this intent is not provided for in the claim. Indeed Shindo does not have to be concerned with depth reduction, in order to provide for the limitation, if the structure in Shindo would inherently produce the same result.

On page 8, applicant argues that the limitation of claim 3 is not taught by Shindo. Claim 3 provides for a play position offset from a direct connecting line between the eject position and the loading position. The examiner notes that figure 2 can clearly show this and further notes that this limitation is incredibly broad and would argue that in all disk players wherein the disk is clamped the play position gets offset in a vertical direction from the line connecting the eject and loading position.

On page 9, applicant argues with respect to claim 4, that ~~this~~ there is no showing in figs. 1 or 2 of Shindo that there is a read position of the disk. The examiner points to elements 17, 44, 46, which show aspects of the disk reproduction device. It is implied from such elements that the reproduction of the disk occurs in this area. The access is also shown (23). Furthermore, the drawing conveys the structure which would transport the disk from loading to play position. The dashed curvilinear line shows the path that the disk takes. The drawing speaks for itself to one of ordinary skill in the art. Applicant further argues with respect to claim 5, that although "Shindo has two transport mechanisms there is no teaching of transporting a disc between eject, play and loading positions." The examiner notes that the sole purpose of disk transport mechanism is to transport a disk between eject, load and play positions.

On page 9, applicant argues with respect to the Umesaki reference that since there is no teaching of a curvilinear path, there is no teaching of guides which are pre-loaded towards the path. The examiner notes that the 103 rejection is based upon the utility of providing guide arms

to the Shindo reference. Since the Shindo reference provides the curvilinear path, such a path need not be provided by Umesaki. The rejection stands.

On page 10, applicant argues that the Nakamichi (US 5,508,994) reference was not provided and that the number is incorrect since it is not in the indexing system used by the attorney. The number is correct, and a copy will be sent in this action. Since patents are given out in a numerically sequential order, even if the attorney placed the wrong number in the system, a patent would exist for the corresponding number, unless the number inputted was above the current patent number given.

Page 10, further argues claims 13-18. The 103 rejection based on Clarion is called into question, because Clarion does not disclose a curved loading path. Clarion is used for the teaching of a screwthread pitch and not a curved path. Therefore the rejection stands, as Shindo provides for a curved loading path.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tod Kupstas whose telephone number is (703) 305-2655.

The fax phone number for this art unit is (703) 308-7201. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology center receptionist whose telephone number is (703) 305-3900.

Tod Kupstas
Oct. 30, 2000

BRIAN E. MILLER
PRIMARY EXAMINER